

SORTING AND FILTERING DATA IN A TABLE

Depending on how much data your table or tables hold, you need a way to get to your data quickly. Without good sorting, searching, and filtering tools, a table with lots of data would be little more than meaningless details. When you use Excel's table-related tools, your data becomes information and the difference is that you will have answers you need that your data can provide.

The following sections show you how to use Excel's powerful table-management tools. For many people, Excel's simpler data tools are all they need to track simple inventories and other tables of data that don't require the services of an advanced database system such as Access 2007.

→ To learn about the more powerful standalone relational database features of Access 2007, see "Access Essentials," p. 835.

PERFORMING SIMPLE SORTS

Excel's table-sorting capabilities let you view your table data in almost any order, regardless of the order in which you entered it. For performing sorts, your data doesn't even have to be formatted as a table with headings.

To quickly sort data in your worksheet, even if the data doesn't appear in a table, first click a single cell in the column by which you want to sort, and then click the Sort and Filter button on the Home ribbon. Select the *ascending sort* (which sorts data alphabetically from A to Z or from 0 to 9, as opposed to a *descending sort*, which sorts from Z to A, or from 9 to 0). Excel selects all the data in your selected column as well as the columns of data that touch that column so that all your rows of data sort together properly.

Select a descending sort to sort in reverse order, using the same column. If you want to sort only a portion of the table, make a selection first, and then use the Tab key to move the active cell to the correct column. This option, used incorrectly, can make a mess of your database, so use it with caution.

TIP FROM

EQ & Woody

If the order in which you enter data is important, add a column to your table and fill it with numeric values that you can use to identify each row, and then increment it by 1 for each new record. Re-sort using the values in this column to return the table to its original order if you need to reverse a sort that went haywire. Don't use a formula for the data in this column, however—when you sort the table, the values will change and you won't be able to return to the original sort order. Of course, as long as you see that a problem has occurred, you can use Excel's Undo command (available as a button on your Quick Access Toolbar or by the Ctrl+Z shortcut key) to reverse a sort.

When you choose ascending order, Excel always sorts numbers first, then most punctuation characters, and then letters, in ascending (A–Z) order, without regard to whether the letters are uppercase or lowercase. Excel generally ignores apostrophes and hyphens when sorting; if two entries are otherwise identical but one contains a hyphen, it will appear after the one that does not contain a hyphen. The precise order for punctuation follows the same order as the Unicode character set, as follows:

(space) ! " # \$ % & (°) * , . / : ; ? @ [\] [ct] _ [ag] { | } [td] + < = >

Sorting data in a table with column headers is even simpler than using the Sort and Filter button (which works for table data, too). Click the down arrow on any column header and select Sort A to Z for an ascending sort, or Sort Z to A to perform a descending sort, and Excel sorts your table's rows ordered by your selected column.

NOTE

Between now and the section titled "Using Filters to Find Sets of Data," the sorting commands discussed work for both regular worksheet data as well as tables you've created in Excel and populated with data. You can tell when a table appears because of the AutoFilter arrows to the right of each column heading, as Figure 21.3 shows.

Figure 21.3
You can distinguish between a table and a worksheet by the arrows that appear to the right of column names on tables.

Inventory Management - Advanced View															
Home		Insert		Page Layout		Formulas		Data							
Calibri		11		A		General		Font							
B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z		A		B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z		Font		Font Color							
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A		B		C		D		E							
1		2		3		4		5							
34543 Industrial		\$1.33		3" Widget		6		34543 Industrial		\$1.33		3" Widget		6	
34556 Medical		\$4.34		16-gauge tube, 6"		4		34556 Medical		\$4.34		16-gauge tube, 6"		4	
76544 Industrial		\$1.44		Iron clasp #43		5		76544 Industrial		\$1.44		Iron clasp #43		5	
87653 Industrial		\$11.43		Bolt kit, 200 pcs		7		87653 Industrial		\$11.43		Bolt kit, 200 pcs		7	
89876 Industrial		\$16.09		Bolt kit, 45 pcs		8		89876 Industrial		\$16.09		Bolt kit, 45 pcs		8	
91232 Consumer		\$3.43		Plastic sheeting, 5x5		6		91232 Consumer		\$3.43		Plastic sheeting, 5x5		6	
97544 Industrial		\$20.58		Rubber matting, 32' x 4'		4		97544 Industrial		\$20.58		Rubber matting, 32' x 4'		4	
98765 Consumer		\$19.33		#4 Cutter		2		98765 Consumer		\$19.33		#4 Cutter		2	
98871 Medical		\$12.44		Blade fitting, 1.5"		0		98871 Medical		\$12.44		Blade fitting, 1.5"		0	
99004 Consumer		\$52.21		45 Round metal washers, 7x		9		99004 Consumer		\$52.21		45 Round metal washers, 7x		9	
99232 Industrial		\$37.69		Brass knob pack, 23x		0		99232 Industrial		\$37.69		Brass knob pack, 23x		0	
76544 Industrial		\$1.44		Iron clasp #43		5		76544 Industrial		\$1.44		Iron clasp #43		5	

SORTING BY MULTIPLE COLUMNS

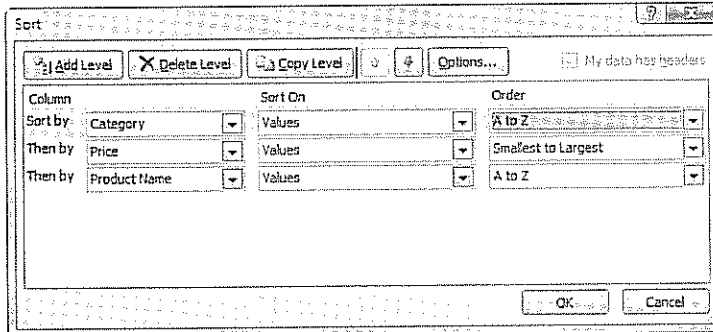
By using the two sort options on the Sort and Filter button, you can perform a multicolumn sort without ever using a dialog box. Perform each column sort in sequence, using the reverse of the final order that you want to see; Excel preserves the order of other columns in the table when you sort each succeeding column. In a sales results worksheet, for example, you might click in the Salesperson column and click a sort button, and then do the same with the Month column, and finally, with the Region column. The result is to sort your table by region, then by month, and then by salesperson.



If sorting your table has unexpected results, see "Sorting Out Sorting Problems" in the "Troubleshooting" section at the end of this chapter.

NEW The Sort dialog box lets you sort multiple columns at one time. To open the Sort dialog box, display your Data ribbon and click Sort to open the Sort dialog box shown in Figure 21.4. Excel 2007 now lets you specify up to 64 columns for your sort order (in contrast to only three in previous versions), using ascending or descending order for each one.

Figure 21.4
This Sort dialog box shows three sort keys, each corresponding to a column label in the table.



SORTING BY DATES OR CUSTOM SERIES

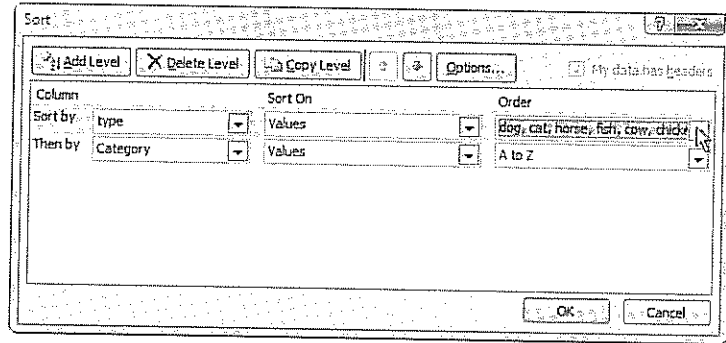
By default, Excel's sort options reorder data alphabetically or numerically. However, a basic A-Z or 1-10 sort isn't always appropriate. Dates and weekdays in text format represent a particular problem. For example, a table of bonds or mortgage loans might include a column, formatted as text, that identifies the month in which an investment matures. Or a table of shift assignments for employees might include a column of weekdays. Using the default sort order would put the month names and weekdays in alphabetical order—April, August, December, February, or Mon, Sat, Sun, Thu—when you actually want to sort the table in calendar order. You might also want to sort your table using a custom AutoFill table—by region, for example, or by budget category (see the previous section for details about how to create one of these tables).

Sorting by date or a custom series is available only when you use the Sort dialog box. To sort by text dates or using a custom series, follow these steps:

1. Click in the table that you want to sort, or select the region of your worksheet to be sorted.
- NEW** 2. Click the Data ribbon's Sort button and identify up to 64 columns for sorting. The column that contains the dates or custom table can be any in the table and not just the first column, as was required in previous versions of Excel 2007.
3. Click the down arrow in the first Sort By option, select the column that holds the series you want to sort by, and select Custom List. The default selection includes four built-in tables—days of the week and months, in long and short versions. In addition, any custom tables that you've created will appear here. You will see your customized sort list in the Order field, as Figure 21.5 shows.




Figure 21.5
Easily sort according to
a custom list you've
created.



5. Click OK to confirm the sort order that you selected; then click OK again to perform the sort.

NOTE

By default, Excel does not distinguish between lowercase and capital letters when sorting. To change this setting, click the Options button in the Sort dialog box and check Case Sensitive. With this option enabled, Excel sorts lowercase letters ahead of capital letters.

-  For the first time, Excel now allows your date or custom sort to appear as any sort key, not just the first one. Feel free, for example, to search by an inventory part number and then by date.

USING FILTERS TO FIND SETS OF DATA

When working with tables, you can use the Find shortcut (Ctrl+F) to search for any value in the table. That technique is useful if you want to jump quickly to a specific unique value in the table, and it works whether your worksheet data is actually stored in a formal table with column headings or not. Instead of simple searching, however, you'll often want to extract details from a table instead of simply jumping to a single record. In that case, use filters to hide all records except those that match criteria that you specify. This is one of the biggest advantages to using data in a table format, rather than using regular worksheet data. You cannot filter worksheet data unless you've turned that data into a table with column headings. After you do that, you can filter and do far more database-related operations with your data to make your data much more useful than it would be in a regular worksheet. For example, in a table that contains hundreds or thousands of rows, defining a filter helps you see a small number of related records together, making it easier to compare data and identify trends.

Consider a table of numerous daily high, low, and closing stock prices that includes data for many companies. You might want to see only those records in which the entry in the Symbol column is equal to KO (that's the Coca-Cola Company, for those who don't know